



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/065,765	11/18/2002	Daw-I Wang	ALIP0005USA	9206

27765 7590 06/03/2005

NORTH AMERICA INTERNATIONAL PATENT OFFICE (NAIPC)
P.O. BOX 506
MERRIFIELD, VA 22116

EXAMINER

AGUSTIN, PETER VINCENT

ART UNIT	PAPER NUMBER
----------	--------------

2652

DATE MAILED: 06/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/065,765

Applicant(s)

WANG ET AL.

Examiner

Peter Vincent Agustin

Art Unit

2652

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 March 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanishima (US 6,791,918) in view of Matsui et al. (US 6,118,742).

In regard to claim 1, Tanishima discloses an optical disc system (Figure 7) for recording data to an optical disc (D) rotating at a constant angular velocity (see column 5, lines 65-67 and Applicant's admission on page 6, paragraph 2 of the amendment dated March 16, 2005), the optical disc system comprising: a spindle motor (12) for rotating the optical disc at a constant angular velocity (CAV); an optical pickup unit (11) for accessing data on the optical disc and producing a wobble signal (SG1); a circuit (23) electrically connected to the spindle motor for generating a control signal according to a rotation speed of the spindle motor and for controlling the spindle motor to rotate the disc at the constant angular velocity according to the control signal (see column 6, lines 44-54); a phase-locked loop (25) for extracting a wobble signal carrier frequency from the wobble signal output by the optical pickup unit; a clock synthesizer (25: note that element 25 corresponds to both the claimed phase-locked loop and clock synthesizer; see column 7, lines 5-11) electrically connected to the PLL for producing a channel clock (CLK) conforming to the CAV according to the carrier frequency output by the PLL and the operating speed of the spindle motor; a data encoder (27, 28 & 29) for being used in

Art Unit: 2652

accordance with the channel clock output by the clock synthesizer to encode incoming data and produce a corresponding data signal (SW4); and an optical pickup unit driver circuit (inherent component that drives element 11) connected to the optical pickup unit for controlling the optical pickup unit according to a write strategy of the optical disc system and the data signal output by the data encoder.

However, in regard to claim 1, Tanishima discloses that the circuit utilizes the wobble signal when generating the control signal (note SC1 in Figure 7), i.e., Tanishima does not disclose the limitation “wherein the circuit does not utilize the wobble signal when generating the control signal”.

Furthermore, in regard to claim 3, Tanishima does not disclose that the circuit comprises: a frequency generator connected to the spindle motor for producing a first signal according to the rotation speed of the spindle motor; a crystal oscillator for producing a fixed clock; a frequency divider connected to the crystal oscillator for dividing the frequency of the inputted fixed clock to produce a second signal; a frequency comparator connected to the frequency generator and the frequency divider for comparing the first signal and the second signal so as to produce the control signal; and a motor driver circuit for driving the spindle motor to rotate the optical disc according to the control signal.

In regard to claim 1, Matsui et al. disclose a circuit (Figure 5, elements 120, 121, 122, 123, 124, 115, 116, 117 & 118) electrically connected to a spindle motor (119) for generating a control signal according to a rotation speed of the spindle motor and for controlling the spindle motor to rotate a disc (104) at a constant angular velocity according to the control signal,

Art Unit: 2652

wherein the circuit does not utilize the wobble signal when generating the control signal (note that selector 115 selects only one of the outputs of elements 124 or 114).

In regard to claim 3, Matsui et al. disclose that the circuit (Figure 5) comprises: a frequency generator (120) connected to the spindle motor for producing a first signal according to the rotation speed of the spindle motor; a crystal oscillator (see label below element 123) for producing a fixed clock; a frequency divider (123) connected to the crystal oscillator for dividing the frequency of the inputted fixed clock to produce a second signal; a frequency comparator (121) connected to the frequency generator and the frequency divider for comparing the first signal and the second signal so as to produce the control signal; and a motor driver circuit (118) for driving the spindle motor to rotate the optical disc according to the control signal.

It would have been obvious to one of ordinary skill in the art at the time of the invention by the Applicant to have used the circuit of Matsui et al. for the system of Tanishima, the motivation being to provide optimum disk rotation control (see column 3, lines 21-28), thereby ensuring accurate reproduction/recording of data.

In regard to claim 2, Tanishima discloses a pre-amplifier (21) electrically connected to the PLL and the optical pickup unit for amplifying the wobble signal output by the optical pickup unit.

In regard to claim 4, Tanishima discloses that the optical disk system is an optical disc recorder (column 1, lines 7-10).

In regard to claim 5, Tanishima discloses that the optical pickup unit is a laser pickup (understood from "reflected light" in column 5, line 43).

Claims 6-10 have limitations that are similar to those of claims 1-5; thus, they are rejected on the same basis.

Response to Arguments

3. Applicant's arguments with respect to claims 1-10 have been considered but are moot in view of the new ground(s) of rejection.

The Applicant argues on page 7, paragraph 2 that “there is no motivation for a skilled person to modify Tanishima’s teachings in view of Matsui’s teachings”. The Examiner disagrees. As noted in the rejection above, it would have been obvious to one of ordinary skill in the art at the time of the invention by the Applicant to have used the circuit of Matsui et al. for the system of Tanishima, the motivation being to provide optimum disk rotation control (see column 3, lines 21-28 of Matsui et al.) Furthermore, Applicant has not disclosed that not utilizing a wobble signal when generating the control signal provides an advantage, is used for a particular purpose, or solves a stated problem; and one of ordinary skill in the art would have expected the Applicant’s invention to perform equally well with either the control signal generated using a wobble signal taught by Tanishima or the claimed control signal generated without using a wobble signal because both techniques are art-recognized alternatives for generating control signals for rotation control of spindle motors.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 2652


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Vincent Agustin whose telephone number is 571-272-7567. The examiner can normally be reached on Monday-Friday 9:30-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Thi Nguyen can be reached on 571-272-7579. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Peter Vincent Agustin
Art Unit 2652


BRIAN E. MILLER
PRIMARY EXAMINER